Grass Roots for Conservation

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Elkhart County Soil & Water Conservation District

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Work with Nature

This is a difficult newsletter to write with so many factors affecting the farm in play. It is even more difficult with your farm business on the line. We have been through both low and high milk prices and high grain prices times before. Farms survived then and will now but not without some change. An old farmer saying is, "Doing the same thing over and over again and expecting different results is the definition of insanity."

Not good news. The cool (cold in some areas) and wet is everywhere. The concern is that the weather is due to the sunspot output going into a major, naturally occurring, decline. When this happens, the magnetic sphere—a magnetic envelope extending from the sun out, covering the earth as it were—shrinks. This allows intergalactic rays to bombard the earth. They produce clouds. Clouds do two things; first, they reflect heat from the sun away from the earth, cooling it and secondly, clouds produce rainfall. We have had both. Neither have anything to do with political "climate change". This has happened before during the "little ice ages" in Europe during the late middle ages (1500-1800,) and the dark ages (300-500). There was widespread crop failure and subsequent famines. Will it be that bad again? I do not know but the real weather scientists are starting to say it is following the same weather pattern in the sun spot minimum.

What can you do? First, pray. God is still in charge, always listens, and replies but not always as we expect. Second, adjust your cropping system to counter the weather patterns. An old saying is. "A drought will scare a farmer to death, a flood will starve him".

On the upside, (cropping – the other good news!) if you are using those cover crops as forage they should have very high digestibility due to the cool and cold nights that we have been experiencing. Thus, if you are weather delayed in making hay do not give up the crop, as we do not know what the rest of the summer will be like. Even if the heads are starting to emerge, harvest it as a regular crop. Then, if the summer turns out perfect, you can move it to dry cows and heifers. If the summer continues like this spring, you will have forage for your dairy herd. The other advantage where farms had been able to get cover crops planted last fall is that there is 60% less moisture under a cover crop than under bare soil. This allows no-till/strip-till corn planting much sooner. A wet spring years ago, a farmer reported the only ground he could get on and harvest was the cover crop fields. He then spread manure on the stubble and planted corn. Then he waited for the rest of the farm to dry out.

This is turning out to be one of those years where it may be most beneficial to harvest haylage first and then plant corn after. Haylage loses quality by the day. Corn loses yield over several weeks. Corn planted later will naturally shorten its maturity to a degree and can still produce 95% of the normal yield. The other reason to wait on the corn is that the planter and its tractor cause some of the worst yield robbing compaction. Those who win yield contests nearly all wait until soil conditions are right. Planting to soon smears and compacts the soil so the corn roots cannot penetrate. The soil, when it dries, can pull open the slot allowing weather and pests to take out the seedling. The other consequence this year is imbibing injury. A rapid temperature drop chills the seed as it absorbs water (imbibing). This can kill the seed.

Consider no-till. You only need the top 4 inches friable to plant not 7- 8 inches as with tillage. You can get more corn no-till planted in less time by waiting for the right conditions.

Now by this point you might be wondering, wow Jim what happened to you (laugh aloud). I do not want to scare or suggest disaster but as stewards of the land, we need to watch and look at our surroundings. You can learn a lot from patterns, animal's hair coats, and tree rings. I am a firm believer in technology, but sometimes history, notes, old timers, and just keeping it simple helps. Always remember if you work with nature, nature will work with you.

BLOGGING BMP's

Welcome back to another edition of Blogging BMP's! I hope that you have been able to keep your emotions in check as you tune into your favorite weather forecaster, or as ABC 57's Tom Coomes puts it, the local farmer's "financial advisor". This spring has shaped up to be one of those where the forecast calls for a 10% chance of rain and for some reason mother nature heard 100%. There does seem to be some promise in the long term for some heat and dryer weather so not all will be lost this spring.

It is not breaking news that rivers, lakes, streams and ditches all have a tendency to flood when it rains heavily in this area. In fact, when the settlers began to move in this area after the Civil War they realized that our Indiana soils were ideal for farming and began to clear the woods and prairies to make way for row crops. One thing they did correctly at that time was identify the consistently wet areas and left the trees in place for water to gather and infiltrate. These remaining woods that typically surround wetlands, streams and ditches did a pretty good job of holding the water and cleaning it up before it infiltrated into the soils and re-entered our groundwater. Fast forward 100 years, and what would take a farmer a month to clear with his horse, saw and a few neighbors is now able to be removed within a few hours. There is literally no place we can't transition a woods into a farm, factory, neighborhood, or parking lot. One thing we must take into consideration is the space along the banks of our waterways that need to be left in place to filter water as it leaves our new developments.

That leads me to one of the items that the new Construction Stormwater General Permit has made a requirement for land developers to consider when they are required to submit a Notice of Intent and a Stormwater Pollution Prevention Plan (SWPPP) due to land disturbance of more than 1 acre, Natural Buffers.

From the IDEM Plan-Development-Guidance Document...

The CSGP defines "Natural Buffer" as an existing (prior to land disturbance) undisturbed area adjacent to or surrounding surface waters within which construction/land-disturbing activity is restricted. For the purposes of implementation of the CSGP buffer requirement the areas that must be preserved include ephemeral, intermittent and perennial streams with a defined bed and bank, natural lakes, and reservoirs. Guidance for determining if an area must be preserved in accordance with the CSGP can be found in the Buffer Guidance Document at **https://www.in.gov/idem/stormwater/resources/stormwater-programtransition-to-master-general-permits/**

Please note that the areas are not required to be "established" so if there is no existing buffer prior to construction activities, a buffer is not required. It is important to understand that if the area is in a floodway or floodplain, it will need to be left undisturbed or additional permits may be required. The bottom line is, if you are encroaching on a waterway, do your homework and find out what the requirements are before disturbing the area. If you are not sure who to contact, please email or call me at tclark@elkhartcounty.com / (574) 536-0932 and I will provide you with the correct information.

ARE YOU READY TO "GO GREEN" AND HELP US SAVE MONEY AND NATURAL RESOURCES???

We can deliver your Grass Roots newsletter by email, just give Lora a call at (574) 523-2030 or send her an email at latkins@elkhartcounty.com and tell us you'd like to "GO GREEN"

Thank You!

EPHEMERAL EDUCATION

This year, we celebrated the 150th Arbor Day in downtown Goshen. There was tree climbing, singing, face painting, and many educational booths. The Elkhart County SWCD, along with Indiana Master Naturalist (IMN) alumni, set up an interactive display along with a tree giveaway. The activity, titled "Ephemeral Art", was a big hit with people small and tall. The concept was that participants were able to take items found in nature—such as sticks, leaves, acorns, rocks, and pinecones—and create a work of art within a picture frame. Eventually, another participant would come along and change the picture within the frame. If we were to leave the artwork, it would still only be around for a short amount of time as the medium in which created it would eventually blow away, wash away, or decay. I think there is something that we can learn from this concept of ephemeral art.

As I watched people come up to the table to create a picture, they would often collaborate with their friends, family, and sometimes strangers to arrange their masterpiece. One teacher can influence a student, but it takes many to create a student masterpiece. If you take one of the artists away, the finished product would not look the same. Never underestimate your power as an educator to influence a student. Whether you have them for a year, a month, or a day you could have an immense impact on their future because in that moment you are changing them.

Ephemeral art is a representation of a moment in time that will change and fluctuate with the world around it. As an educator, you are helping to form your students, so that they may transform and adapt as everything around them does. In any given moment, you have a big impact. Your approach to education, influences young minds, constantly forming them into their future selves.

You are the artists and they are your masterpieces. Treat them with thoughtfulness and individuality.

For more creative education ideas, please visit www.elkcoswcd.org/education

Send your questions to Walden the Worm

The "Dear Abby" of Conservation

Dear Walden,

What is the nutrient value of cover crops? Can I count on them and cut back on fertilizer?

Sincerely, Mr. Farmer

Dear Mr. Farmer,

Walden here. There are books written on this topic to explain the benefits and many interrelated cause and effects of a covered soil, a growing cover crop and live roots. I spend my life pushing and burrowing through soil. YES covered soil and living roots will lessen fertilizer need. Consider this; soil with cover and or growing cover crops will have a much better structure for root development resulting in greater nutrient uptake. I and fellow worms will feed on the surface residue, recycling it into plant food while improving soil structure. The exudates of living roots will also improve soil structure and increase soil organic matter.

The physical structure of soil and or cow feed play a huge role in production. Will a field of clods produce well? Will cows feed whole dry shelled corn and long stalks produce well? Covered soil is protected from loss due to wind. Every farmer should melt a bucket of brown snow, the resulting muddy water will be a shock! How much fertile top soil blew over the snow, and into Michigan and Ohio? When mother nature uses her pressure washer (falling rain) on bare soil, the result is damage and loss. The turbid (muddy) water enters soil pores and in time plugs what few pores there are. There are times all worms struggle to avoid suffocation from mud closed burrows. The turbid water is unable to infiltrate, the soil runs off the field heavy with top soil, phosphorous, and nitrates.

A live cover sequesters crop nutrients in top growth. The living roots add soil organic matter, a negative anion, which helps bind positive cations of phosphorous and nitrogen reducing fertilizer loss. I hate rainy days under bare soil, the turbid, fertilizer rich water burns my nearly skinless body. On light ground much of this water/fertilizer moves deep into the soil profile, deeper than roots can recover. On heavy ground the water/fertilizer moves out of tile drains. In both scenarios fertilizer is lost, not to return. Think of soil as a boat and anchor, a boat needs a deck to protect from waves and rain (sinking). The anchor keeps the boat from washing down river. Soil contains a boat load of fertilizer, cover, living roots, and negative anions in soil, organic matter provides a soil anchor. To maximize the soil improvement of cover crops and nutrient sequestering, remember legumes add nitrogen and plant into a green growing crop. Soil temps of 47 degrees will soon be here and I can work at top speed. Mr. Farmer remember I will work for food.

Wishing you all the best soil health,

– Walden

Send your questions to elkhartcountyswcd@gmail.com or drop them off at the office and have your question answered by Walden the Worm in upcoming Grassroots publications!

UPCOMING EVENTS

May 30,	**Memorial Day Holiday:** Our office will be ***CLOSED*** for the Memorial Day Holiday.
June 9	**Pasture Walk:** LeRoy & Kara Miller – 1-3 pm @ LaGrange, IN – ***Topic:*** *Beef*
June 20	**SWCD Board Meeting:** 5:30 PM, SWCD Office, 59358 County Road 7, Elkhart, IN
July 4	**Independence Day Holiday:** Our office will be ***CLOSED*** for the Independence Day Holiday.
July 14	**Pasture Walk:** Ezra & Ida Schrock – 1-3 pm @ LaGrange, IN – ***Topic:*** *Dairy*
July 18	**SWCD Board Meeting:** 5:30 PM, SWCD Office, 59358 County Road 7, Elkhart, IN
August 11	**Pasture Walk:** Vernon Borkholder – 1-3 pm @ Nappanee, IN – ***Topic:*** *Organic Dairy*
August 15	**SWCD Board Meeting:** 5:30 PM, SWCD Office, 59358 County Road 7, Elkhart, IN
Sept. 12	**Pasture Walk:** Kevin Miller – **Monday,** 6 pm @ Millersburg, IN – ***Topic:*** *Sheep/Grazing*
Sept. 19	**SWCD Board Meeting:** 5:30 PM, SWCD Office, 59358 County Road 7, Elkhart, IN
Oct. 13	**Pasture Walk:** Kenneth Imhoff – 1-3 pm @ Tippecanoe, IN – ***Topic:*** Organic Dairy/Pasture Irrigation/Bees
Oct. 17	**SWCD Board Meeting:** 5:30 PM, SWCD Office, 59358 County Road 7, Elkhart, IN

SWCD - NRCS CONSERVATION PARTNERSHIP DIRECTORY

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